

CUSTOMER NO. 46850

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: Attorney Docket No. Doshi 58-10-27-19-36

In re application of: Bharat T. Doshi, Zbigniew Marek Dziong, Ramesh Nagarajan, Muhammad A. Qureshi, Yung-Terng Wang

Serial No.: 10/673,055

Group Art Unit: 2476

Filed: 09/26/2003

Examiner: Chuong T. Ho

Matter No.: 990,0508

Phone No.: 571-272-3133

For: Restoration Path Calculation Considering Shared-Risk Link Groups in Mesh Networks

REPLY BRIEF UNDER 37 CFR 41.41

Mail Stop Appeal Brief - Patents
Commissioner for Patents
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ATTENTION: Board of Patent Appeals and Interferences

This Reply Brief is filed in response to the Examiner's Answer of 08/16/2010 regarding the final Office Action of 01/14/2010.

Status of Claims

Claims 1-4, 8-14, 18, and 19 are allowed. Claim 25 is objected to and would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claims 20-24 are rejected. The claims on appeal are claims 20-24.

Grounds of Rejection to be Reviewed on Appeal

A first issue is whether the rejection of claims 20 and 24 under 35 U.S.C. 103(a) as unpatentable over U.S. Pat. App. Pub. No. 2003/0009582 A1 to Qiao et al. (“Qiao”), in view of U.S. Pat. No. 6,130,875 to Doshi et al. (“Doshi”) is proper.

A second issue is whether the rejection of claim 23 under 35 U.S.C. 103(a) as unpatentable over Qiao in view of Doshi is proper.

Argument

General Remarks

In pages 3-10 of the Examiner's Answer ("Answer"), the Examiner restated the grounds for the rejections of claims 20-24. In pages 10-17 of the Answer, the Examiner provided a response ("Response") to arguments made by the Applicant in the Appeal Brief. The Applicant notes that, on page 2 of the Answer, the Examiner confirmed that claim 25 is directed to allowable subject matter. However, on page 16 of the Answer, the Examiner submitted that claim 25 is unpatentable. The Applicant presumes that the statement on page 16 regarding claim 25 was unintended and should be ignored and requests clarification if that is not the case.

Reply to Response

Qiao's Paragraph 30 Does Not Teach Assigning Initial Link Costs

The Examiner responded to the Applicant's argument that Qiao's background section – at paragraphs 58, 61, and 67 – could not disclose reducing a link cost, namely $w + B(w)$, that is first introduced in paragraph 113. In the Response, the Examiner instead asserted that paragraph 30 of Qiao teaches assigning an initial cost to a link, where Qiao allegedly teaches reducing that initial link cost in paragraphs 58, 61, and 67. The Applicant submits that paragraph 30 of Qiao does not teach assigning initial link costs.

Paragraph 30 of Qiao states, in its entirety, the following:

"The following three schemes, all under centralized control, have been proposed. In each scheme, it is assumed that a central controller knows the network topology as well as the initial link capacity (i.e. C_a for every link a)."

As can be plainly seen, paragraph 30 says nothing about link costs, let alone assigning link costs. The Applicant does not deny that a link's assigned cost might be related to the link's capacity. However, a link cost is not the same as the link's capacity. In addition, knowing a link's initial capacity is not equivalent to assigning an initial cost to the link, despite the presence of the words "initial" and "link" in both phrases. The Applicant respectfully submits that the Examiner failed to provide any convincing evidence that Qiao, or any other cited reference, teaches that cost and capacity are equivalent.

Cost Is Not Equivalent to Capacity

In the Response, the Examiner argued that the Specification of the present application itself teaches that capacity and cost are the same or equivalent. The Applicant respectfully submits that the Examiner's argument is unsupported and, in addition, does not make sense. The

Examiner cited the Specification at page 18, lines 17-19. The Applicant notes that the Examiner's paraphrasing omitted several non-parenthetical terms, underlined below, from the cited section. The Specification at page 18, lines 17-19 recites:

"Bandwidth sharing information allows computation of more optimal paths (e.g., that improve sharing) that can considerably reduce the required amount of restoration bandwidth, and thus the overall cost of the network."

In other words, reducing the required amount of restoration bandwidth can reduce the overall cost of the network. The Examiner, however, concluded, without further explanation, that the above teaches that, "Therefore, the protection capacity and the protection bandwidth are the same, or equivalent to, cost of the network" (emphasis removed). The Applicant submits that, as would be understood by a person of ordinary skill in the art, (1) the protection capacity of a link is a subset of the overall capacity of the link and is not the same as that overall capacity, (2) the overall cost of a network is not equivalent to the cost of a link, and (3) the existence of a relationship between capacity and cost does not, by itself, teach that the relationship is one of equivalence. Consequently, the Applicant respectfully submits that the leaps of logic made in the Examiner's conclusory assertion of equivalence are unsupported, and that, as a result, the conclusory assertion of equivalence is improper.

The Applicant notes that the reply to the Response's assertion of equivalence of capacity and cost also applies to the rejection of claim 23.

The Applicant's Argument Was Mischaracterized

In the Response, the Examiner asserted that, "In Page 5, Lines 7-10, the appellant argues that Qiao '582 does not teach bandwidth sharing among the backup connections when using this scheme." The Applicant respectfully notes that the cited section of the Appeal Brief refers specifically to paragraph 58 of Qiao, which describes a so-called No-Sharing scheme. The cited section does not make arguments about other sections of Qiao.

Response Is Non-Responsive

The Examiner's response to the argument that minimizing bandwidth consumed is not equivalent to reducing, for each link of a specified set of links, the link's assigned initial cost consisted essentially of (i) the conclusory assertion that minimizing total bandwidth consumed is actually reducing the link's initial cost, and (ii) a citation to Qiao at paragraphs 58, 61, and 67. The Applicant respectfully submits that such a response is non-responsive. The Applicant notes

that the Appeal Brief explained in detail on pages 4-5 why Qiao does not teach reducing a link's assigned initial cost and, therefore, that argument is not repeated here.

Dependent Claims Improperly Rejected

In the Response, the Examiner stated that, "Since claims 21-23 depend variously from claim 20, ... it is further submits that those claims are also unpatentable over the cited references." The Applicant respectfully submits that this presents improper reasoning. While claims that depend from allowable claims are, therefore, also allowable, it is not the case that claims that depend from rejected claims are, for that reason alone, also rejected (rather than objected to). In fact, as noted above, claim 25, for example, is directed to allowable subject matter even though dependent from a rejected base claim. Consequently, the Applicant submits that these grounds for rejecting claims 21-23 are improper and should be withdrawn.

Conclusion

In view of the foregoing, it is respectfully submitted that the Examiner is in error. It is, accordingly, respectfully requested that the rejection of claims 20-24 be reversed and the application passed to issue.

Respectfully submitted,

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